Approval Number: AIR 01-1017 NOC ID: 435

DEPARTMENT OF HEALTH
RADIOACTIVE AIR EMISSIONS
LICENSE AMENDMENT FOR

PROJECT TITLE: TANK FARM RESTORATION AND SAFE STORAGE
Date Approved: 05-Nov-01
Emission Unit Name: TYPE-1, TYPE-2, TYPE-3

This is a MINOR, ACTIVELY ventilated emission unit.

This emission unit requires the following Abatement Technology:

Applicable Requirements: **BARCT**

ALARACT [WAC 246-247-040(4)]
BARCT [WAC 246-247-040(3)]

Zone or Area:	Abatement Technology	Required # of Units	Additional Description/Conditions
	HEPA	1	Type-1
	HEPA	1	Type-2 and Type-3
	Charcoal filter	1	Type-2 and Type-3

Additional abatement technologies required by this Notice of Construction will be listed in the Conditions and Limitations section.

This emission unit has the following Monitoring and Sampling Requirements:

Applicable Requirements: Monitoring, Testing and Quality Assurance WAC 246-247-075

Regulatory Requirements	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075[3]	Appendix B, Method 114	GROSS ALPHA/BETA	Annual, unless sspecified by the NOC.

Sampling Requirements: One of the following methods may be chosen for actual emissions reporting: nondestructive assay, record sampler, or continuous air monitoring, whichever is more appropriate.

Additional monitoring or sampling requirements established by this NOC will be listed in the Conditions and Limitations section.

Change History

11/02/01 Conditions and Limitations, AIR 01-1017, mailed on November 05, 2001 to incorporate NOC approved revisions dated October 3, 2001 and May 2, 2001. AIR 01-1017 replaces all previous conditions of approval of AIR 00-310.

10/03/01 NOC Revision Form revised Annual Possession Quantity values for soil excavation, was approved October 3, 2001.

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04/17/98 Original approval was clarified via signed Meeting Minutes on April 17, 1998.

03/16/98 Original approval was clarified via signed Telecon Meeting Minutes dated March 18, 1998.

03/05/98 Original activity was approved via AIR 98-302, dated March 5, 1998.

CONDITIONS AND LIMITATIONS

1) The U.S. Department of Energy shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2) The total abated emission limit for this Notice of Construction is limited to 1.15E-02 mrem/year to the Maximally Exposed Individual. The total unabated emission limit for this Notice of Construction is limited to 1.15E-02 mrem/year to the Maximally Exposed Individual.

3) **This process is limited to:**
excavation for support of the replacement of existing transfer lines with compliant transfer lines. Excavation will also be performed to support the construction of a new pit. Minor excavations will be performed to support pit coring and replacement of wall nozzles in valve and pump pits to accommodate the new transfer lines.

Existing cross-site transfer lines will be cut and small sections removed to support the replacement of existing transfer lines with new compliant transfer lines. Additionally, other piping cuts may be made on existing transfer lines or risers because they interfere with the installation of the new pipelines or a new AN valve pit. Remaining sections of the existing transfer lines will be left in place.

Pit activities will be comprised of decontamination, applying protective coatings, and replacing wall nozzles, leak detectors, cover blocks, pipe stub-outs, and jumpers.

A new valve pit will be constructed adjacent to the AZ Tank Farm.

Construction of the new AN valve pit will connect an extension of the cross-site transfer line to Tank AN-104. Connection of the new pit piping to the tank riser, and other similar connections if necessary will be performed via bolted or welded flange.

4) **The Annual Possession Quantity is limited to the following radionuclides (Curies/year):**

Am	241	8.59E-04
Co	60	5.32E-04
Cs	137	6.31E+00
Eu	152	9.76E-03
Eu	154	1.66E-02
Pu	238	4.76E-04

Pu	239	3.73E-03
Pu	240	5.91E-04
Pu	241	2.54E-02
Pu	242	3.45E-08
Sr	90	3.54E+01
U-	233	1.43E+00
Y-	90	3.54E+01

5) The controls and monitoring requirements listed in the NOC and this approval shall assure adequate measures are in place for the safe operation of the emission unit.

6) The department reserves the right to conduct an environmental surveillance program around the emission unit and to require the facility to conduct or modify its own environmental monitoring program (WAC 246-247-075(9)).

7) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

   Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shutdown or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity.

   All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with (WAC 246-247-080(8)). (WAC 246-247-080(6))

8) The Annual Possession Quantity (APQ) for pipe cuts must be tracked using a WDOH approved log. The log must contain the date the cut was performed, contamination levels associated with the pipe being cut, using the same methodology as outlined in Attachment 1 "Potential to Emit Cutting Transfer Lines", and the mrem/yr to the MEI associated with that pipe cut (WAC 246-247-080(7)).

9) This project must be included in the next revision of the Air Operating Permit if active at the time (WAC 246-247-060(1)(e)).

10) The NOC constitutes a contract between the department and the facility. Any changes must be approved by the department.

11) Any deviation from required or recommended monitoring standards must be approved by the department. The NOC makes a commitment on what standards (required or recommended) will be followed. At that point, the commitment is binding

12) This approval to commence construction is valid for only two years from the date of approval. If construction is not commenced within two years of approval, the approval is void.

13) An ALARACT demonstration may be required at any time by the department WAC 246-247-130.

14) Any spread of contamination via the air pathway must be reported to the department within 24 hours (WAC 246-247-075(9)).

15) Pit work will be comprised of decontamination, applying protective coatings, and replacing wall

nozzles, leak detectors, cover blocks, pipe stub-outs and jumpers. Additional pit activities will include coring to allow installation of new equipment and piping and to allow access to pit equipment. Pit work will also include repair and removal of cracked material to allow application of grouting material.

16) The project shall be fully accessible to department inspectors (WAC 246-247-080(9)).

17) Any deviation from the description of the modification or new construction without approval of the department, may result in enforcement action under WAC 246-247-100.

18) Containment for the cutting of transfer lines will be HEPA filtered and in sealed glove bags or other containment. HEPA filters used on passively ventilated glovebags or containments will be surveyed once per day. HEPA filters used on powered ventilation will comply with the requirements of the Portable/Temporary Radioactive Air Emission Units NOC (DOE/RL-96-75).

19) Expandable foam may be used in cutting of transfer lines, but is not required.

20) Nothing may be inferred that is not specifically described in this NOC (WAC 246-247-060 and 110).

21) No radionuclides other than those listed in the NOC may be emitted in any detectable concentrations (WAC 246-247-110(10)(11)(12)).

22) Pit work will include removal of cracked material that will be performed using manual and power tools. This work will be conducted inside a fully enclosed containment tent with a HEPA filtered exhauster operated in accordance with the PTRAEU NOC

23) All records required by WAC 246-247 must be retrievable within 24 hours of the request, and must be stored onsite at the facility. All records shall be maintained for a minimum of five years (WAC 246-247-080(8)).

24) Pit coring activities will be performed in accordance with the containment requirements established in the HNF-IP-0842 "Containment Guidelines Matrix".

25) The facility shall notify the department at least seven days prior to any planned preoperational testing (cold or hot) monitoring or containment system involved in this project. The department reserves the right to observe any such testing (WAC 246-247-060(4)). Notification may be by phone, electronic mail or written correspondence.

26) The department reserves the right at any time to require the licensee to provide for split or collocated sampling of this project (WAC 246-247-075(10)).

27) The emission limit for this project may not exceed 1.15E-02 mrem/yr. TEDE to the MEI (WAC 246-247-040(5)). All logs, and documentation associated with this NOC and other referenced NOCs (PTREAU NOC, A-Tank Farm Guzzler NOC, and Categorical Guzzler NOC) must be maintained for review and assure that the APQ and emission limit of 1.15E-02 mrem/yr. TEDE to the MEI are not exceeded for Project W-314.

28) For cover block removal a "bull pen" will be utilized. A vertical splashguard will be established around the pit and will be maintained less than 50,000 dpm/100 cm2 beta-gamma and 20 dpm/100 cm2 alpha. The removable contamination within the pit is decontaminated/fixed to an average of less than 100,000 dpm/100 cm2 beta-gamma and 2000 dpm/100 cm2 alpha or an approved fixative has been reapplied to pit surfaces. Fixative will matrix the contamination to ensure minimization of potential airborne contamination.

For the removal of jumpers an open top greenhouse ventilated with an HEPA filtered exhauster will be utilized for containment. The exhauster will be operated in accordance with the PTRAEU NOC. A suction elephant trunk may be extended into the valve pit. When an elephant trunk in extended into a pit it should be maintained at least two feet above the pit floor. As jumpers are removed from the valve

pit they will be drained of any liquid while still within the valve pit. Draining will be accomplished by titling the jumper and allowing any liquid present to flow to the pit floor and floor drain. The ends of the jumpers will then be wrapped in plastic and placed in disposal boxes while inside the containment.

A continuous air sample will be taken during pit work evolution. Work will be placed in a safe condition and stopped if the results of the net field count indicate that the work place air sample has exceeded 0.1 of the Derived Air Concentration (DAC) at which time WDOH will be notified. Work will remain suspended until this air sample and potential cause has been evaluated by the Radiological Controls and Environmental. An air sample outside of a radiological area will be taken at approximately the same time and volume and can be used as a background sample to subtract activity resulting from radon and its progeny from the workplace sample.

During pit work when contamination levels exceed 100,000 dpm/100 cm2 and the fixative is disturbed or not in place, containment shall consist of a fully enclosed certified containment tent with an operating HEPA filtered exhaust. The exhauster will be operated in accordance with the PTRAEU NOC.

Approval Number: AIR 01-1017 NOC ID: 435

DEPARTMENT OF HEALTH
RADIOACTIVE AIR EMISSIONS
LICENSE AMENDMENT FOR

PROJECT TITLE: TANK FARM RESTORATION AND SAFE STORAGE
Date Approved: 05-Nov-01
Emission Unit Name: GUZZLER

This is a MINOR, ACTIVELY ventilated emission unit.

This emission unit requires the following Abatement Technology:

Applicable Requirements: **ALARACT**

ALARACT [WAC 246-247-040(4)]
BARCT [WAC 246-247-040(3)]

Zone or Area:	Abatement Technology	Required # of Units	Additional Description/Conditions
	Collection Tank and Plate Separator	1	
	Cyclone Separator	1	Baghouse with 72 bags each.
	Micro-strainer Device	1	
	HEPA	3	Three in-place tested HEPA filters in parallel.

Additional abatement technologies required by this Notice of Construction will be listed in the Conditions and Limitations section.

This emission unit has the following Monitoring and Sampling Requirements:

Applicable Requirements: Monitoring, Testing and Quality Assurance WAC 246-247-075

Regulatory Requirements	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075[3]	Appendix D, Method 114(3)	All radionuclides which could contribute 10% of the potential EDE.	When the HEPA filters are replaced and annually screening the HEPA filtration system.

Sampling Requirements: Radiation surveys and to include but not limited to NDA testing of the HEPA filters and screening the HEPA filtration system using gamma spectroscopy.

Additional monitoring or sampling requirements established by this NOC will be listed in the Conditions and Limitations section.

Change History

11/02/01 Conditions and Limitations, AIR 01-1017, mailed on November 05, 2001 to incorporate NOC approved revisions dated October 3, 2001 and May 2, 2001. AIR 01-1017 replaces all previous conditions of approval of AIR 00-310.

10/03/01 NOC Revision Form revised Annual Possession Quantity values for soil excavation, was approved October 3, 2001.

05/02/01 NOC Revision Form revised condition number 25 of AIR 00-310, was approved May 2, 2001.

11/02/00 NOC Revision Form, Revision 5, was approved November 2, 2000 to revise process description.

03/22/00 NOC Revision Form, Revision 4, was approved March 22, 2000 via AIR 00-310 to document general revisions of the Notice of Construction. AIR 00-310 replaces all previous conditions of approval of AIR 98-302, AIR 99-404

and AIR 00-104.

01/13/00 NOC Revision Form, Revision 3, was approved January 13, 2000 via AIR 00-104 to document general revisions of the Notice of Construction.

11/16/99 NOC revision form, Revision 2, approved November 16, 1999 to revise process description.

04/18/99 NOC revision, Revision 1, was approved April 19, 1999 via AIR 99-404 to document general revisions of the Notice of Construction.

04/06/99 Original approval was clarified via signed Meeting Minutes on April 6, 1999.

06/22/98 Original approval was clarified via signed Meeting Minutes on June 22, 1998

06/04/98 Original approval was clarified via signed Meeting Minutes on June 4, 1998.

04/17/98 Original approval was clarified via signed Meeting Minutes on April 17, 1998.

03/16/98 Original approval was clarified via signed Telecon Meeting Minutes dated March 18, 1998.

03/05/98 Original activity was approved via AIR 98-302, dated March 5, 1998.

CONDITIONS AND LIMITATIONS

1) The U.S. Department of Energy shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2) The total abated emission limit for this Notice of Construction is limited to 1.15E-02 mrem/year to the Maximally Exposed Individual. The total unabated emission limit for this Notice of Construction is limited to 1.15E-02 mrem/year to the Maximally Exposed Individual.

3) **This process is limited to:**

excavation for support of the replacement of existing transfer lines with compliant transfer lines. Excavation will also be performed to support the construction of a new pit. Minor excavations will be performed to support pit coring and replacement of wall nozzles in valve and pump pits to accommodate the new transfer lines.

Existing cross-site transfer lines will be cut and small sections removed to support the replacement of existing transfer lines with new compliant transfer lines. Additionally, other piping cuts may be made on existing transfer lines or risers because they interfere with the installation of the new pipelines or a new AN valve pit. Remaining sections of the existing transfer lines will be left in place.

Pit activities will be comprised of decontamination, applying protective coatings, and replacing wall nozzles, leak detectors, cover blocks, pipe stub-outs, and jumpers.

A new valve pit will be constructed adjacent to the AZ Tank Farm.

Construction of the new AN valve pit will connect an extension of the cross-site transfer line to Tank AN-104. Connection of the new pit piping to the tank riser, and other similar connections if necessary will be performed via bolted or welded flange.

4) **The Annual Possession Quantity is limited to the following radionuclides (Curies/year):**

Am	241	1.58E-01
Sr	90	7.87E+00

5) The controls and monitoring requirements listed in the NOC and this approval shall assure adequate measures are in place for the safe operation of the emission unit.

6) The department reserves the right to conduct an environmental surveillance program around the emission unit and to require the facility to conduct or modify its own environmental monitoring program (WAC 246-247-075(9)).

7) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

   Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shutdown or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity.

   All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with (WAC 246-247-080(8)). (WAC 246-247-080(6))

8) This project must be included in the next revision of the Air Operating Permit if active at the time (WAC 246-247-060(1)(e))

9) The NOC constitutes a contract between the department and the facility. Any changes must be approved by the department.

10) Any deviation from required or recommended monitoring standards must be approved by the department. The NOC makes a commitment on what standards (required or recommended) will be followed. At the point, the commitment is binding.

11) This approval to commence construction is valid for only two years from the date of approval. If construction is not commenced within two years of approval, the approval is void.

12) An ALARACT demonstration may be required at any time by the department WAC 246-247-130.

13) Any spread of contamination via the air pathway must be reported to the department within 24 hours (WAC 246-247-075(9)).

14) The use of the Guzzler is approved for excavation work associated with the W-314 Project provided the total PTE for the project of 1.15E-02 mrem/yr. TEDE to the MEI is not exceeded. The emission from the Guzzler must be tracked using a WDOH approved operations log. The log shall include soil contamination levels, total amount of soil excavated, and the calculated potential dose to the MEI form those emissions using a release fraction of one. The Guzzler will be operated in accordance with the Tank Farm A Complex NOC and the associated conditions provided by WDOH in the December 23, 1997 shortform approval, or subsequent revisions. Guzzler use in other Farms will be performed in accordance with the December 18, 1998 WDOH approved Categorical Guzzler NOC, AIR 98-1215, or subsequent revisions.

15) Excavated areas will be backfilled with the original soil or soil that is less contaminated than excavated soil.

16) The project shall be fully accessible to department inspectors (WAC 246-247-080(9)).

17) Any deviation from the description of the modification or new construction without approval of the

department, may result in enforcement action under WAC 246-247-100.

18) The emission limit for this project may not exceed 1.15E-02 mrem/yr. TEDE to the MEI (WAC 246-247-040(5)). All logs, and documentation associated with this NOC and other referenced NOCs (PTREAU NOC, A-Tank Farm Guzzler NOC, and Categorical Guzzler NOC) must be maintained for review and assure that the APQ and emission limit of 1.15E-02 mrem/yr. TEDE to the MEI are not exceeded for Project W-314.

19) Vibratory roller compactors may not be used on contaminated soil, due to the high possibility of soil resuspension (WAC 246-247-040(4)).

20) Nothing may be inferred that is not specifically described in this NOC (WAC 246-247-060 and 110).

21) Excavation work north of the 241-AX-103 and 101 Tanks is close to the 216-A-39 Crib, which may be a source of extra contamination in the vicinity. Extra care should be taken in that area.

22) No radionuclides other than those listed in the NOC may be emitted in any detectable concentrations (WAC 246-247-110(10)(11)(12)).

23) The facility must be able to demonstrate the reliability and accuracy of emission data and other test results from this unit (WAC 246-247-075(13)). The emission data must be reported in the Hanford Site Annual Air Emission Report

24) All records required by WAC 246-247 must be retrievable within 24 hours of the request, and must be stored onsite at the facility. All records shall be maintained for a minimum of five years (WAC 246-247-080(8)).

25) The facility shall notify the department at least seven days prior to any planned preoperational testing (cold or hot) monitoring or containment system involved in this project. The department reserves the right to observe any such testing (WAC 246-247-060(4)). Notification may be by phone, electronic mail or written correspondence.

26) The department reserves the right at any time to require the licensee to provide for split or collocated sampling of this project (WAC 246-247-075(10)).

DEPARTMENT OF HEALTH
RADIOACTIVE AIR EMISSIONS
LICENSE AMENDMENT FOR

PROJECT TITLE: TANK FARM RESTORATION AND SAFE STORAGE
Date Approved: 05-Nov-01
Emission Unit Name: 200 AREA DIFFUSE/FUGITIVE

This is a MINOR, FUGITIVE, non-point source emission unit.

This emission unit requires the following Abatement Technology:

Applicable Requirements: **BARCT**

ALARACT [WAC 246-247-040(4)]
BARCT [WAC 246-247-040(3)]

Zone or Area:	Abatement Technology	Required # of Units	Additional Description/Conditions
			Abatement controls as required in the following Conditions and Limitations.

Additional abatement technologies required by this Notice of Construction will be listed in the Conditions and Limitations section.

This emission unit has the following Monitoring and Sampling Requirements:

Applicable Requirements: Monitoring, Testing and Quality Assurance WAC 246-247-075

Regulatory Requirements	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075[3]	Appendix B, Method 114	All radionuclides which could contribute 10% of the potential EDE.	As listed in the following Conditions and Limitations.

Sampling Requirements: Existing near-facility monitoring stations.

Additional monitoring or sampling requirements established by this NOC will be listed in the Conditions and Limitations section.

Change History

11/02/01 Conditions and Limitations, AIR 01-1017, mailed on November 05, 2001 to incorporate NOC approved revisions dated October 3, 2001 and May 2, 2001. AIR 01-1017 replaces all previous conditions of approval of AIR 00-310.

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03/05/98 Original activity was approved via AIR 98-302, dated March 5, 1998.

CONDITIONS AND LIMITATIONS

1) The U.S. Department of Energy shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2) The total abated emission limit for this Notice of Construction is limited to 1.15E-02 mrem/year to the Maximally Exposed Individual. The total unabated emission limit for this Notice of Construction is limited to 1.15E-02 mrem/year to the Maximally Exposed Individual.

3) **This process is limited to:**

excavation for support of the replacement of existing transfer lines with compliant transfer lines. Excavation will also be performed to support the construction of a new pit. Minor excavations will be performed to support pit coring and replacement of wall nozzles in valve and pump pits to accommodate the new transfer lines.

Existing cross-site transfer lines will be cut and small sections removed to support the replacement of existing transfer lines with new compliant transfer lines. Additionally, other piping cuts may be made on existing transfer lines or risers because they interfere with the installation of the new pipelines or a new AN valve pit. Remaining sections of the existing transfer lines will be left in place.

Pit activities will be comprised of decontamination, applying protective coatings, and replacing wall nozzles, leak detectors, cover blocks, pipe stub-outs, and jumpers.

A new valve pit will be constructed adjacent to the AZ Tank Farm.

Construction of the new AN valve pit will connect an extension of the cross-site transfer line to Tank AN-104. Connection of the new pit piping to the tank riser, and other similar connections if necessary will be performed via bolted or welded flange.

4) **The Annual Possession Quantity is limited to the following radionuclides (Curies/year):**

Am	241	1.02E-03
Co	60	5.32E-04
Cs	137	6.31E+00
Eu	152	9.76E-03
Eu	154	1.66E-02
Pu	238	4.76E-04
Pu	239	3.73E-03
Pu	240	5.91E-04

Pu	241	2.54E-02
Pu	242	3.45E-08
Sr	90	3.55E+01
U-	233	1.43E+00
Y-	90	3.54E+01

5) The controls and monitoring requirements listed in the NOC and this approval shall assure adequate measures are in place for the safe operation of the emission unit.

6) The department reserves the right to conduct an environmental surveillance program around the emission unit and to require the facility to conduct or modify its own environmental monitoring program (WAC 246-247-075(9)).

7) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

   Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shutdown or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity.

   All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with (WAC 246-247-080(8)). (WAC 246-247-080(6))

8) The Annual Possession Quantity (APQ) for pipe cuts must be tracked using a WDOH approved log. The log must contain the date the cut was performed, contamination levels associated with the pipe being cut, using the same methodology as outlined in Attachment 1 "Potential to Emit Cutting Transfer Lines", and the mrem/yr. to the MEI associated with that pipe cut (WAC 246-247-080(7)).

9) This project must be included in the next revision of the Air Operating Permit if active at the time (WAC 246-247-060(1)(e)).

10) The NOC constitutes a contract between the department and the facility. Any changes must be approved by the department.

11) **This condition was obsoleted on 5/2/01.** A wind speed restriction of 20 miles per hour will be applied to all excavation of radioactive material. This criterion applies to sustained wind speed as determined by the Hanford Meteorological Station.
Obsoleted via NOC Application/Permit Revision Form approved 5/2/2001. (AIR 01-1017)

12) Any deviation from required or recommended monitoring standards must be approved by the department. The NOC makes a commitment on what standards (required or recommended) will be followed. At that point, the commitment is binding.

13) The emissions from the continued operation of the new AN and AZ pits will be limited to 5.38E-04 mrem/yr, these emissions will be monitoring by the near field monitoring stations.

14) This approval to commence construction is valid for only two years from the date of approval. If construction is not commenced within two years of approval, the approval is void.

15) An ALARACT demonstration may be required at any time by the department WAC 246-247-130.

16) Any spread of contamination via the air pathway must be reported to the department within 24 hours (WAC 246-247-075(9)).

17) The APQ for soil excavation must be tracked using a WDOH approved log. The log must contain the date of the excavation, the contamination levels of the soil, amount of soil excavated, and the mrem/yr. to the MEI associated with that excavation (WAC 246-247-080(7)).

18) Pit work will be comprised of decontamination, applying protective coatings, and replacing wall nozzles, leak detectors, cover blocks, pipe stub-outs and jumpers. Additional pit activities will include coring to allow installation of new equipment and piping and to allow access to pit equipment. Pit work will also include repair and removal of cracked material to allow application of grouting material.

19) The use of the Guzzler is approved for excavation work associated with the W-314 Project provided the total PTE for the project of 1.15E-02 mrem/yr. TEDE to the MEI is not exceeded. The emission from the Guzzler must be tracked using a WDOH approved operations log. The log shall include soil contamination levels, total amount of soil excavated, and the calculated potential dose to the MEI form those emissions using a release fraction of one. The Guzzler will be operated in accordance with the Tank Farm A Complex NOC and the associated conditions provided by WDOH in the December 23, 1997 shortform approval, or subsequent revision. Guzzler use in other Farms will be performed in accordance with the December 18, 1998 WDOH approved Categorical Guzzler letter NOC, AIR 98-1215, or subsequent revision.

20) Excavated areas will be backfilled with the original soil or soil that is less contaminated than excavated soil.

21) The project shall be fully accessible to department inspectors (WAC 246-247-080(9)).

22) Any deviation from the description of the modification or new construction without approval of the department, may result in enforcement action under WAC 246-247-100.

23) The emission limit for this project may not exceed 1.15E-02 mrem/yr. TEDE to the MEI (WAC 246-247-040(5)). All logs, and documentation associated with this NOC and other referenced NOCs (PTREAU NOC, A-Tank Farm Guzzler NOC, and Categorical Guzzler NOC) must be maintained for review and assure that the APQ and emission limit of 1.15E-02 mrem/yr. TEDE to the MEI are not exceeded for Project W-314.

24) Vibratory roller compactors may not be used on contaminated soil, due to the high possibility of soil resuspension (WAC 246-247-040(4)).

25) Expandable foam may be used in cutting of transfer lines, but is not required.

26) Containment for the cutting of transfer lines will be HEPA filtered and in sealed glove bags or other containment HEPA filters used on passively ventilated glovebags or containments will be surveyed once per day. HEPA filters used on powered ventilation will comply with the requirements of the Portable/Temporary Radioactive Air Emission Units NOC (DOE/RL-96-75).

27) Nothing may be inferred that is not specifically described in this NOC (WAC 246-247-060 and 110).

28) Soil will be wetted prior to and during excavation using the backhoe, jackhammer or rototool. During manual excavation soil will be wetted upon excavation if it is not naturally damp.

29) Excavation work north of the 241-AX-103 and 101 Tanks is close to the 216-A-39 Crib, which may be a source of extra contamination in the vicinity. Extra care should be taken in that area.

30) No radionuclides other than those listed in the NOC may be emitted in any detectable concentrations (WAC 246-247-110(10)(11)(12)).

31) The facility must be able to demonstrate the reliability and accuracy of emission data and other test

results from this unit (WAC 246-247-075(13)). The emission data must be reported in the Hanford Site Annual Air Emission Report

32) Pit work will include removal of cracked material and will be performed using manual and power tools. This work will be conducted inside a fully enclosed containment tent with a HEPA filtered exhauster operated in accordance with the PTRAEU NOC

33) All records required by WAC 246-247 must be retrievable within 24 hours of the request, and must be stored onsite at the facility. All records shall be maintained for a minimum of five years (WAC 246-247-080(8)).

34) During excavation, using a backhoe, jackhammer, rototool, or manual devices soil will be placed in a container or on the ground for a screening survey.

The screening levels will be as follows:

* Excavation activities will be stopped if evenly distributed (i.e. non-speck) contamination detection readings are greater than 100,000 dpm/100 cm2 beta-gamma, or 35 dpm/100 cm2 alpha above background. Background for alpha will be determined in a known clean area nearby. Excavation will not continue until a review of the work and encountered conditions have been performed and it has been confirmed with the Department of Health that no threat to the environment exists, and proper controls (i.e. removal and disposal, water, fixative, covers, etc.) have been put into place.

* Screening survey for alpha contamination will not be performed unless the beta-gamma survey is greater than 100,000 dpm/100 cm2 above naturally occurring background.

* If hot specks are detected during the screening surveys, the specks will be removed and containerized in drums for disposal before the excavation is allowed to continue, unless located in the bottom of the trench. In the bottom of the trench, the specks maybe covered with clean fill.

* Screening surveys for beta-gamma contamination will be conducted using a GM/P-11 probe. Screening surveys for alpha contamination will be conducted using a PAM.

35) Pit coring activities will be performed in accordance with the containment requirements established in the HNF-IP-0842 "Containment Guidelines Matrix".

36) The facility shall notify the department at least seven days prior to any planned preoperational testing (cold or hot) monitoring or containment system involved in this project. The department reserves the right to observe any such testing (WAC 246-247-060(4)). Notification may be by phone, electronic mail or written correspondence.

37) A HEPA vacuum may be used to assist in the removal of debris during repair of cracked concrete and concrete coatings. The HEPA vacuum must only be operated in a fully enclosed containment tent, which is being ventilated by a HEPA filtered powered exhaust, in accordance with the PTRAEU NOC. Any other use of a HEPA vacuum must receive prior approval from WDOH

38) For cover block removal a "bull pen" will be utilized. A vertical splashguard will be established around the pit and will be maintained less than 50,000 dpm/100 cm2 beta-gamma and 20 dpm/100 cm2 alpha. The removable contamination within the pit is decontaminated/fixed to an average of less than 100,000 dpm/100 cm2 beta-gamma and 2000 dpm/100 cm2 alpha or an approved fixative has been reapplied to pit surfaces. Fixative will matrix the contamination to ensure minimization of potential airborne contamination.

For the removal of jumpers an open top greenhouse ventilated with an HEPA filtered exhauster will be

utilized for containment. The exhauster will be operated in accordance with the PTRAEU NOC. A suction elephant trunk may be extended into the valve pit. When an elephant trunk in extended into a pit it should be maintained at least two feet above the pit floor. As jumpers are removed from the valve pit they will be drained of any liquid while still within the valve pit. Draining will be accomplished by titling the jumper and allowing any liquid present to flow to the pit floor and floor drain. The ends of the jumpers will then be wrapped in plastic and placed in disposal boxes while inside the containment.

A continuous air sample will be taken during pit work evolution. Work will be placed in a safe condition and stopped if the results of the net field count indicate that the work place air sample has exceeded 0.1 of the Derived Air Concentration (DAC) at which time WDOH will be notified. Work will remain suspended until this air sample and potential cause has been evaluated by the Radiological Controls and Environmental. An air sample outside of a radiological area will be taken at approximately the same time and volume and can be used as a background sample to subtract activity resulting from radon and its progeny from the workplace sample.

During pit work when contamination levels exceed 100,000 dpm/100 cm2 and the fixative is disturbed or not in place, containment shall consist of a fully enclosed certified containment tent with an operating HEPA filtered exhaust. The exhauster will be operated in accordance with the PTRAEU NOC.

39) The department reserves the right at any time to require the licensee to provide for split or collocated sampling of this project (WAC 246-247-075(10)).

40) Excavation work north of the 241-AX-103 and 101 Tanks is close to the 216-A-39 Crib, which may be a source of extra contamination in the vicinity. Extra care should be taken in that area.

41) Excavation of radioactive material will be done in accordance with ALARACT 5, TWRS Demonstration for Soil Excavation (Using Hand Tools).

42) The APQ for Transfer Line Cuts is as follows:

Pu-238	2.59E-04 Ci
Pu-239/240	1.10E-03 Ci
Cs-137	5.62E+00 Ci
Sr-90	3.35E+01 Ci
Y-90	3.35E+01 Ci
U-233	1.43E-00 Ci
Am-241	8.45E-04 Ci

43) The APQ for Pit Work is as follows:

Co-60	5.32E-04 Ci
Sr-90	1.91E+00 Ci
Y-90	1.91E+00 Ci
Cs-137	6.86E-01 Ci
Eu-152	9.76E-03 Ci
Eu-154	1.66E-02 Ci
Pu-238	2.17E-04 Ci
Pu-239	2.63E-03 Ci
Pu-240	5.91E-04 Ci
Pu-241	2.54E-02 Ci
Am-241	1.40E-05 Ci
Pu-242	3.45E-08 Ci

44) The APQ for soil excavation is as follows:

Sr-90 7.87E+00 Ci/yr
Am-241 1.58E-01 Ci/yr

45) Diffuse/Fugitive emissions shall be monitored using the 200 Area near-field ambient air monitors. Sample collection and analysis shall follow that of the near field monitoring program. Analytical results shall be reported in the Annual Air Emissions Report. Any change to this near-field ambient monitoring program must be approved by the department.

NOC Application/Permit Revision

NOTE: Any increase to abated or unabated PTE requires a full NOC modification

REASON FOR CHANGE

Submittal Date: 11/15/01

Submittal Type:

☒ **NOC Application Revision**

☐ **Condition Change/ Clarification**
WDOH Condition Number:
AOP Condition Number:

☐ **ALARACT Revision**
New ALARACT Rev Number:

☐ **Report of Closure**

PROJECT IDENTIFICATION

Project Title: Tank Farms Restoration and Safe Operation
Current NOC Application Number: DOE/ORP 99-04
AEI ID Number (AOP Emission Unit Number(s)): 200E J-NONPOINT 003
Current WDOH Approval Letter Number(s): AIR 01-1017
WDOH NOC ID Number: 441 435

DESCRIPTION OF CHANGE

Number of Attachments 0

WDOH will provide a new approval letter containing any new or modified conditions that result from the following proposed change.

Proposed Change (provide original and proposed wording):

In attachment 3 to Revision 4 of this Notice of Construction, under the heading **AN VALVE PIT UPGRADES**:

Current wording:

- Repair protective coatings, as required, to pits 241-AN-A & 241-AN-B. Decontamination will be performed before the application of new coatings.
- Replace wall nozzles, leak detectors, jumpers, pipe stub-outs, and cover blocks in pits 241-AN-A & 241-AN-B.

Proposed wording:

- Repair protective coatings, as required, to pits 241-AN-A, 241-AN-B, *241-AN-03A, 241-AN-06A, 241-AN-05A, 241-AN-02A, & 241-AN-07A.* Decontamination will be performed before the application of new coatings.

- Replace wall nozzles, leak detectors, jumpers, pipe stub-outs, and cover blocks in pits 241-AN-A, 241-AN-B, *241-AN-03A, 241-AN-06A, 241-AN-05A, 241-AN-02A, & 241-AN-07A*

Email AND Fax completed form to Joy Redman (360) 236-2255
Once Approved Email AND Fax form to AOP Team (509) 372-2828

A-184

Report of Closure

Number of Attachments 0

WAC 246-247-080(6) Indicate whether, despite cessation of operations, there is still a potential for radioactive air emissions and a need for an active or passive ventilation system with emission control and/or monitoring devices. If decommissioning is planned and will constitute a modification, a NOC is required, as applicable, in accordance with WAC 246-247-060.

If monitoring, reporting or record keeping, are being relaxed, propose alternatives and give justification.

A new set of conditions and limitations will follow in a letter.

SIGNATURES

Reviewed by Contractor	Reviewed by RL/ORP	Approved by WDOH
[signature] 11-13-01	[signature: D W Bowman]	[signature: P John Martell]
[signature] for K. S. Tollefson		
[signature] for W. T. Dixon (Per Telecon)		
Date: 11-14-01	Date: 11-14-01	Date: 11-26-2001

FOR WDOH USE ONLY

Data Entry Completed By: ______________________ Date: ____________

Email AND Fax completed form to Joy Redman (360) 236-2255

Once Approved Email AND Fax form to AOP Team (509) 372-2828